# City of San José CLASS SPECIFICATION

## **TITLE:** Sr. Instrument Control Technician (3763)

DEPARTMENT	ACCOUNTABLE TO	FLSA STATUS
Environmental Services	Instrument Control Supervisor	Non-exempt

#### **CLASS SUMMARY**

Incumbents are responsible for performing advanced maintenance and repair work on Instrumentation systems (including electronic and telemetric) and for performing various administrative duties. Duties include: serving as a lead to staff starting-up, operating, maintaining, testing, troubleshooting and repairing instrumentation, electronic, telemetric components, systems and equipment; performing inspections, and evaluations on various instrumentation and telemetric systems; overseeing, reviewing and monitoring the work of consultants and vendors; designing, fabricating and installing instrumentation and telemetric systems and components; overseeing preventative maintenance programs; code compliance; purchasing supplies and managing shop inventory; and writing reports. Performs related duties as required.

## DISTINGUISHING CHARACTERISTICS

The Senior Instrument Control Technician is the second level of a three-level Instrumentation series. The Senior Instrument Control Technician is distinguished from the Instrument Control Technician, which has responsibility for performing routine instrumentation and telemetric systems maintenance and repair activities. The Senior Instrument Control Technician responsible for performing more advanced maintenance and repair work, overseeing program elements and administrative duties not typically required of Instrument Control Technicians, and may act as a lead to Instrument Control Technicians. The Sr. Instrument Control Technician is distinguished from the Instrument Control Supervisor, which has full supervisory responsibility.

Incumbents may be subjected to moving mechanical parts, electrical currents, vibrations, fumes, odors, dusts, poor ventilation, extreme temperatures, inadequate lighting, work space restrictions, and intense noises, and may be required to lift up to 50 pounds occasionally.

## **QUALIFICATIONS**

(These qualifications are typically required. An equivalent combination of education, experience, knowledge, skills, and abilities sufficient to satisfactorily perform the duties of the job may be substituted.)

## **Minimum Qualifications**

## **Education and Experience**

Associate's Degree, or a two year technical degree in an approved electronics program or closely related field and three years experience in electronics/electro-mechanical instrumentation work.

## Required Licensing (such as driver's license, certifications, etc.)

Valid CA Driver's License.

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## **Other Qualifications**

(Incumbents may be required to have different combinations of the listed qualifications, or more specific job-related qualifications depending on the position.)

#### Basic Knowledge, Skills and Abilities

## (Needed at entry into the job in order to perform the essential duties.)

- Knowledge of basic Supervisory theories and principles;
- Knowledge of applicable city, state, and federal laws, rules, and regulations;
- Knowledge of basic electrical principles;
- Knowledge of National Electric Code as applied to low voltage systems;
- Knowledge of basic mathematics principles;
- Knowledge of safety principles;
- Knowledge of basic mechanical hardware;
- Knowledge of basic electronics principles;
- Knowledge of basic chemistry principles;
- Knowledge of P.I.D. control loops;
- Knowledge of I.S.A standard symbols and methodology;
- Knowledge of basic wastewater treatment principles;
- Knowledge of basic to advanced instrumentation principles, practices, applications and installation including electric, telemetric, pneumatic and hydraulic systems;
- Skill in using various instrument testing equipment;
- Skill in repairing various instruments;
- Skill in calibrating equipment;
- Ability to startup, troubleshoot, maintain, and repair a variety of Wastewater instrumentation, control, and telemetric systems;
- Ability to use computers and computer software as related to instrumentation systems.

#### **Desirable Qualifications**

## (Knowledge, skills and abilities; licenses, certificates, education, experience that is more position specific and/or likely to contribute to more successful job performance.)

- Skill in training others in instrumentation;
- Skill in monitoring and evaluating personnel;
- Skill in reading and interpreting diagrams and blueprints;
- Ability to read and prepare single line schematics, ladder logic diagrams, loop diagrams and other instrumentation and control drawings;
- Skill in communication, interpersonal skills as applied to interaction with coworker, supervisor, the general public, etc. sufficient to exchange or convey information, to maintain highly professional and respectful working relationships, and to receive work direction;
- Ability to program PLCs;
- Ability to troubleshoot and maintain VFDs;
- Ability to designing, fabricate and install instrumentation and telemetric systems and components;
- Ability to organize and maintain parts and equipment inventories;
- Ability to develop and lead I&C Preventative Maintenance programs;
- Ability to write clear and coherent reports and records.

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DUTY	TYPICAL CLASS ESSENTIAL DUTIES: (These duties and estimated	FRE-
NO.	frequency are a representative sample; position assignments may vary	QUENCY*
	depending on the business needs of the department.) Duties may include, but	
	are not limited to, the following:	
1.	May act as a lead, assigning, scheduling and checking work, providing technical direction, determining priorities, and training staff. As a lead, may sign timecards and may give input to the supervisor regarding the employee's performance evaluation, hiring, promotion, termination and discipline of employees.	Daily 15%
2.	Inspects, evaluates, operates, maintains, tests, troubleshoots, installs, and repairs instruments, components, systems and equipment including electric, telemetric and pneumatic systems.	Daily 50%
3.	Programs, configures, and optimizes the instrumentation, electronic or pneumatic control equipment and systems.	Daily 10%
4.	Fills out work orders, maintains records and prepares reports.	Daily 5%
5.	Designs, fabricates and installs instrument and telemetric systems and components to include ensuring code compliance and installing.	Monthly 5%
6.	Purchases equipment, parts and supplies including: selecting vendors; filling out paperwork; coordinating purchases.	Monthly 5%
7.	Operates computer programs for maintaining and testing instrumentation equipment and systems.	Monthly 5%
8.	Reviews designs and specifications.	Monthly 5%
9.	Performs other duties of a similar nature or level.	As Required

<sup>\*</sup>Frequency defined as %, (totaling 100%)  $\underline{or}$  "Continuous" (daily or approximately 20%+), "Frequent" (weekly or approximately 15%+), "Occasional" (monthly or approximately 10%+), "As Required" (Intermittent or 5% or less)

**CLASSIFICATION HISTORY** Established 4/5/2005;3763s000